



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
087820,756	03/19/97	GULDING	CCL2178

QM61/0616  
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EXAMINER	
FREAY, C	
ART UNIT	PAPER NUMBER
3746	

DATE MAILED: 06/16/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/820,756**

Applicant(s)  
**Golding et al**

Examiner  
**Charles Freay**

Group Art Unit  
**3746**



☐ Responsive to communication(s) filed on \_\_\_\_\_.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☒ Claim(s) 15-20 is/are allowed.

☒ Claim(s) 1-3 and 8-11 is/are rejected.

☒ Claim(s) 4-7 and 12-14 is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Nose et al.

Nose et al discloses a rotary pump having a housing (32) with an axis, a rotor (1) and a stationary bearing (22) having a non-circular geometry in a radial cross-section.

3. Claims 1, 2, 8, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Wampler.

Wampler discloses a pump having a shaftless rotor (17,19 in Fig. 4), and a bearing (42-44) which extends within the rotor and has non-circular and circular parts.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nose et al.

As set forth above Nose et al discloses the pump substantially as claimed but does not disclose that the geometry includes a semi-elliptical portion. At the time of the invention it would have been obvious to one of ordinary skill in the art to experiment and make the surface of element 22 elliptical based upon the best supporting structure of the impeller and the ease of manufacturing the surface.

6. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wampler.

As set forth above Wampler discloses the pump substantially as claimed but does not disclose that the geometry includes a semi-elliptical portion. At the time of the invention it would have been obvious to one of ordinary skill in the art to experiment and make the surface 43

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elliptical based upon the best supporting structure of the impeller and the ease of manufacturing the surface.

***Allowable Subject Matter***

7. Claims 4-7 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Claims 15-20 are allowed.
9. The examiner notes that claims 1 and 8 would be favorably considered over the prior art if the claims were amended to make it clear that the bearings were fluid bearings.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Golding et al ('177) and ('509) disclose the applicants prior pumps.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Freay whose telephone number is (703) 308-0639 or at the fax number (703)308-7763.

  
CHARLES G. FREAY  
PRIMARY EXAMINER

CGF

June 4, 1998